UNITED
NATIONS

E

Economic and Social
Council

Distr.
GENERAL

E/CN.4/1997/113
24 February 1997

Original: ARABIC/ENGLISH

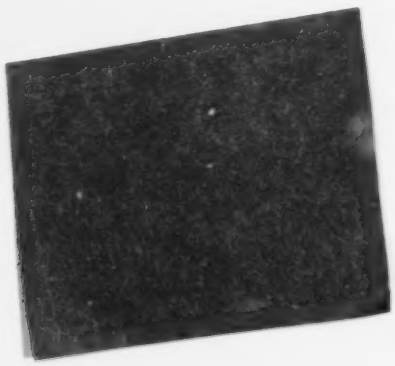
COMMISSION ON HUMAN RIGHTS
Fifty-third session
Item 10 of the provisional agenda

QUESTION OF THE VIOLATION OF HUMAN RIGHTS AND FUNDAMENTAL FREEDOMS IN ANY PART OF THE WORLD, WITH PARTICULAR REFERENCE TO COLONIAL AND OTHER DEPENDENT COUNTRIES AND TERRITORIES

Note verbale dated 4 February 1997 from the Permanent Mission of the Republic of Iraq to the United Nations Office at Geneva addressed to the Centre for Human Rights

The Permanent Mission of the Republic of Iraq to the United Nations Office at Geneva presents its compliments to the Centre for Human Rights and has the honour to submit herewith a study entitled "Facts concerning the use of radioactive weapons by the coalition forces and their effects on the environment and the population in Iraq".

The Permanent Mission of the Republic of Iraq would be grateful if this study could be circulated as an official document of the fifty-third session of the Commission on Human Rights under agenda item 10.



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Facts concerning the use of radioactive weapons by the coalition forces and their effects on the environment and the population in Iraq

Introduction

Further to the study which the Government of the Republic of Iraq submitted to the forty-eighth session of the Sub-Commission on Prevention of Discrimination and Protection of Minorities and which appeared in document E/CN.4/Sub.2/1996/32 of 9 June 1996, we wish to draw attention to the following facts concerning the excessive use of various weapons, some radioactive types of which were used for the first time in the history of warfare, and their effects on the environment and the population in Iraq.

First of all, reference must be made to the 1980 United Nations Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May be Deemed to be Excessively Injurious or to Have Indiscriminate Effects, since weapons and munitions of this type cause unjustifiable pain and suffering to both the civilian population and the belligerents. Reference must also be made to the draft resolution adopted by the Sub-Commission on Prevention of Discrimination and Protection of Minorities at its forty-eighth session (E/CN.4/Sub.2/1996/L.18), in operative paragraph 2 of which the Secretary-General was requested to collect information from Governments, other United Nations bodies and non-governmental organizations on the use of nuclear weapons, chemical weapons, fuel-air bombs, napalm, cluster bombs, biological weaponry and weaponry containing depleted uranium, on their consequential and cumulative effects, and on the danger they represent to life, physical security and other human rights. Finally, reference must also be made to the draft resolution adopted by the First Committee of the General Assembly at its fifty-first session in 1996 (A/C.1/51/L.24), in the preamble of which the General Assembly took into consideration its resolution 2602 C (XXIV) of 16 December 1969, in which it requested the Conference of the Committee on Disarmament, inter alia, to consider effective methods of control against the use of radiological methods of warfare.

The British and United States authorities have admitted using depleted uranium to improve their forces' ability to confront Iraqi armoured units. In this connection, in its edition published on 10 April 1995, the newspaper Le Monde Diplomatique quoted William M. Arkin, President of the Washington-based Institute for Science and International Security, as saying that about 300 tonnes of depleted uranium had been dropped on Iraq and Kuwait during the war. The newspaper also quoted the confidential report submitted by the United Kingdom Atomic Energy Authority to the British Government in November 1991, which stated that "there will be specific areas in which many rounds would have been fired where localized contamination of vehicles and the soil may exceed permissible limits and these could be hazardous to the local population".

A joint study conducted by specialists from three United States research institutions (the Rural Alliance for Military Accountability, the Progressive Alliance for Community Empowerment and Citizen Alert) confirmed that depleted

uranium rounds had been used, for the first time in the history of modern warfare, during the Gulf war and countless Iraqi soldiers had been killed either directly by depleted uranium shells or as a result of exposure to their radiation. The study estimated that 50,000 Iraqi children had probably died during the first eight months of 1991 from various diseases, including cancer, kidney failure and previously unknown internal diseases.

1. Radioactive contamination

In order to assess the severe damage suffered by civilian facilities as a result of their intensive bombardment by the coalition forces, teams of Iraqi specialists conducted a survey to identify the type of weapons used and their effect on the environment and the population, particularly in the southern parts of the country which were subjected to the heaviest bombardment and devastation throughout the period of the war.

The results of the survey showed that large areas of land in the governorate of Basra were contaminated by radioactive substances (depleted uranium) and there were many cases in which mysterious diseases had appeared in those areas, quite apart from the large number of persons who had been killed or wounded as a result of the direct effect of those weapons on the battlefield and on neighbouring areas (due to the mass destruction of armoured vehicles and the dispersion of radioactive dust to various areas).

The attached tables 1-4 summarize the results of the survey in three selected areas of the governorate of Basra and provide material proof of the use of depleted uranium. The long-term effect of these weapons on the environment and the food chain in southern Iraq remains unknown and, therefore, potentially serious.

Table 1

Results of the field measurements of exposure levels in the northern Rumaila area

Type of target selected	Level of radiation exposure (μ roentgen/hour)	
	Normal exposure level	Target exposure level
1. BMP1 personnel carrier	8.1	24.6
2. MTLB personnel carrier	8.2	9.7
3. T72 tank	8.7	15.1
4. Rescue tank	7.2	13.2

Table 2

Results of the field measurements of exposure levels in the areas of Shamiya airport and Kadirat al-Uzaimi

Type of target selected	Level of radiation exposure (μ roentgen/hour)	
	Normal exposure level	Target exposure level
1. T72 tank	7.0	60.8
2. Watercan personnel carrier	7.2	60.3
3. Location far from T72 tank (radioactive background)	7.1	7.3
4. Location far from personnel carrier	7.3	7.2

Table 3

Results of the field measurements of exposure levels in and around the demilitarized zone

Type of target selected	Level of radiation exposure (μ roetgen/hour)	
	Normal exposure level	Target exposure level
1. Iraqi oil pumping station on the Saudi Arabian border at Kharanij (depleted uranium warhead).	7.4	83
2. T55 tank between crossing points 13 and 14.	7.6	21
3. T72 tank No. 16107.	7.2	23
4. T55 tank to the left of closed crossing point 9.	7.4	67
5. T72 tank near the international observation post between crossing points 12 and 13.	7.6	69
6. T72 tank to the south-east of Sanam Hill near the headquarters of the warning and control battalion.	7	65

Table 4

Uranium 235/Thorium 234 radioactive isotope concentration at selected locations in specified areas

Name of area	Type of target selected	Uranium 235/Thorium 234 concentration
1. Northern Rumaila area	(a) BMP 1 personnel carrier	0.016
	(b) MTLB personnel carrier	-
	(c) T72 tank	0.022
	(d) Rescue tank	0.02
2. Shamiya airport area	(a) T72 tank	0.017
	(b) Watercan personnel carrier	0.023
3. Demilitarized and surrounding areas	(a) Iraqi oil pumping station on the Saudi Arabian border at Kharanij (depleted uranium warhead)	0.014
	(b) T55 tank between crossing points 13 and 14	0.012
	(c) T72 tank	0.01
	(d) T55 tank to the left of closed crossing point 9	0.02
	(e) T72 tank near the international observation post between crossing points 12 and 13	0.024
	(f) T72 tank at the foot of Sanam Hill	0.02
4. Standard uranium source		0.518

2. Effects on health

The competent Iraqi health authorities have conducted field and clinical medical and scientific surveys to study the effects of the intensive use of various weapons, some of which were used for the first time in the history of warfare by the coalition forces in their attack on Iraq. The following statistical studies show the incidences of some diseases which appeared in Iraq's environment after the war.

Leukaemia among children

This study was conducted by Dr. Husam ed-Din al-Jarmoukli, a paediatric specialist from the College of Medicine, Baghdad University, Iraq, at two of the main children's hospitals at Baghdad with a view to determining the incidence of acute lymphoblastic and non-lymphoblastic leukaemia at the Mansour Hospital in Saddam Medical City and comparing it with the situation at the Saddam Central Paediatric Hospital. The study showed notable increases in the number of child patients suffering from leukaemia who had been admitted to only two units in those hospitals. The following table shows the pattern of gradual increase during the years 1990-1993. Studies and surveys are continuing in order to determine the causal relationship between this increase and the excessive use of various weapons, including radioactive weapons.

Table 5

	Mansour Hospital				Saddam Central Hospital	
	Lymphoblastic leukaemia		Non-lymphoblastic leukaemia		Lymphoblastic leukaemia**	
Year	Number	%	Number	%	Number	%
1990	47	14.6	12	14.0	10	7.6
1991	82	25.5	18	20.9	Unit closed due to the war	
1992	88	27.3	21	24.4	47	35.6
1993	105	32.6	35	40.7	75	56.8
Total	322	100.0	86	100.0	132	100.0

** Statistics on non-lymphoblastic leukaemia not available.

The incidence of cancer

Dr. Amer al-Hashimi, Dr. Naziha Farman and Dr. Saad Shawqi Mansour (researchers and specialists in pathology at the College of Medicine, Baghdad University, Iraq) have compiled and analysed tests carried out on 4,020 cancer patients referred to their laboratories by the hospitals in Saddam Medical City at Baghdad. They found that 67.7 per cent of these patients were suffering from tumours that had been diagnosed by tissue examinations (histopathology). The most widespread forms of cancer were those affecting

the bladder, the skin, the throat, the breasts and the lung. Of the other forms (32.3 per cent), which were diagnosed through blood and spinal marrow tests (haematology), the most prevalent was leukaemia. Table 6 gives a breakdown of these cases by year, from which it can be seen that, as compared with 1989, there was a gradual increase in the number of patients referred for analysis.

Table 6

Year	Number of cases of cancerous tissue	Percentage	Number of cases of leukaemia and medullary cancer	Percentage	Total	Percentage
1989	499	18.3	156	12.0	655	16.3
1990	505	18.6	258	19.9	763	19.0
1991	576	21.1	250	19.3	826	20.5
1992	596	21.9	357	27.5	953	22.7
1993	546	20.1	277	21.3	823	20.5
Total	2 722	100.0	1 298	100.0	4 020	100.0

Table 7 shows the increase in the incidence of one form of leukaemia (acute lymphoblastic leukaemia) during the 1990-1993 post-war period, as compared with 1989.

Table 7

Year	Number of cases	Percentage
1989	47	8.2
1990	112	19.4
1991	130	22.6
1992	185	32.1
1993	102	17.7
Total	576	100.0

Excessive rate of change in human sperm after the war

This study was carried out by Dr. Ramzi Nayef Barnouti (specialist in urology and male sterility at the Ministry of Health's Al-Kindi Hospital) and Dr. Walid Ghanim al-Tawil (specialist in public and occupational health at the College of Medicine, Baghdad University, Iraq), who monitored a select group

of 69 patients attending Dr. Ramzi's surgery who had undergone sperm tests during the six-month period preceding the war and again during the first six months after the war. The tests showed a notable and statistically significant deterioration in the characteristics of their sperm components. There was an evident decline in the concentration of the spermatozoa, a change in their morphology and a reduction in their mobility, as can be seen from table 8. In view of the lack of any obvious reason for this deterioration, the two researchers believe that it is most probably attributable to the worsening environmental situation and the pollution caused by military operations etc. It should be noted that these patients came from various parts of Iraq and not from a single area.

Table 8

Characteristics	Pre-war rate	Post-war rate	P
Concentration (million spermatozoa/cm^3)	42.4	27.9	< 1%
Morphology (percentage normally formed)	43.5	30.6	< 1%
Mobility (percentage of active spermatozoa)	25.4	18.5	< 5%
Volume (cm^3)	2.85	1.6	> 5%

Survey of patients suffering from chromosomal changes, congenital syndromes and skeletal abnormalities diagnosed through clinical tests and chromosomal studies in 1989-1990 and 1992-1993

The survey, which was carried out by Dr. Salma Abdul Hafiz al-Taha (specialist in congenital diseases at the College of Medicine, Baghdad University, Iraq) on children under two years of age, showed an increase in the incidence of some of those diseases after the war in comparison with the pre-war period. All the patients attending the congenital disease laboratory in Saddam Medical City during the years 1989-1990 and 1992-1993 were recorded (1,038 patients during the former and 945 during the latter period). The survey showed that 19.5 per cent of the patients during the pre-war period were suffering from congenital diseases, as compared with 26.9 per cent during the post-war period.

The congenital diseases in which significant increases were noted during the post-war period 1992-1993 were atrophy of the reproductive organs, congenital syndromes, chromosomal trisomies, skeletal abnormalities such as shortness or total absence of some limbs or the abnormal presence of additional organs, digestive diseases such as enzymopathy, hydrocephalic or anencephalic live births and eye diseases such as congenital ocular obturation and even total absence of an eye. The following table gives details of these increases.

Table 9

	1989-1990 Total number: 1 038		1992-1993 Total number: 945	
Patients suffering from	Number	%	Number	%
Atrophy of reproductive organs	38	3.7	48	5.6
Congenital syndromes	11	1.1	46	4.9
Chromosome 13, 18 and 21 damage	38	3.7	46	4.9
Skeletal abnormalities	29	2.8	43	4.6
Digestive diseases	6	0.6	14	1.5
Hydrocephaly/anencephaly	5	0.5	10	1.1
Eye diseases	2	0.2	5	0.5

Summary

Excessive use was made of various weapons, some radioactive types of which were used for the first time in the history of warfare. The various reports and studies that have so far appeared on this subject show that the allied forces used 300-700 tonnes of depleted uranium against the Iraqi forces in the southern theatre of military operations.

Mysterious diseases and particularly diseases of a cancerous nature, which were not widespread in Iraq before the aggression, have appeared.

Studies are currently being undertaken by Iraqi specialists, acting in collaboration with various international personalities and organizations, to determine the causal relationship between the excessive use of various types of weapons, including radioactive weapons, and the large increase in mysterious diseases, particularly those of a cancerous nature, which has been noted in Iraq during the last five years.